



Innovation Program

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Bureau of Research
Division of Statewide Planning

What are our challenges?



Aging infrastructure



Growing Traffic Volumes



Funding Impediments



Limited Staffing



Extreme Weather
Demographics
Technology
Energy & Fuels

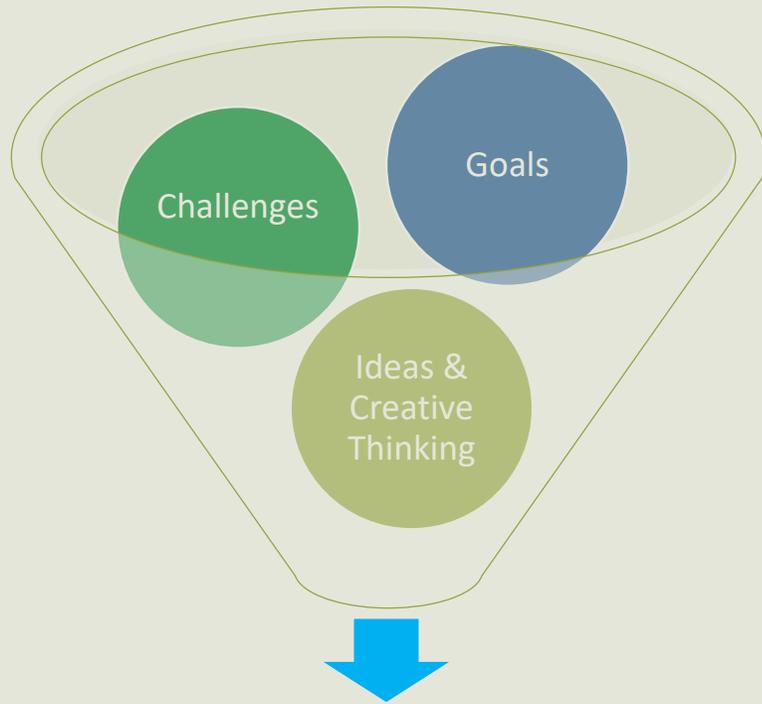
What are our goals?

“Improving Lives by Improving Transportation”

- Maintain & Renew Transportation Infrastructure
- Integrate Transportation and Land Use Planning
- Increase Safety and Security
- Improve Mobility, Accessibility, Reliability
- Operate Efficiently
- Respect the Environment
- Optimize Freight Movement
- Continue to Improve Agency Effectiveness



What is the role of the Bureau of Research?



Innovation

**FASTER
BETTER
SMARTER**



STRATEGIC RESEARCH PLANNING

HOW?

- Survey
- Interviews
- Strategic Workshops & Focus Groups

WHO?

- NJDOT Leadership, Subject Matter Experts, Research customers

WHY?

- To discuss global and domestic issues that have the potential to transform transportation in NJ
- To identify challenges that you have in disseminating information out to your staff and users
- To identify areas of research that will prepare NJ for short and long term changes

Results = Strategic Research Plan



TECHNOLOGY TRANSFER PROGRAM

What is Technology Transfer (T2)?

- Ultimate goal of all transportation research
- Process by which the transportation community receives and applies the results of research.
- Tech transfer accelerates the successful adoption of innovations and increases the impact of every taxpayer dollar spent on research and development.



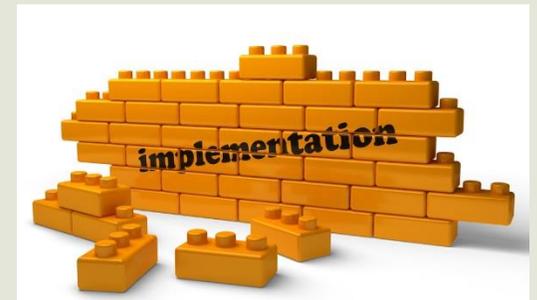
Keys to having a successful T2 Program:

- Understand adopters' needs
- Understand the technology
- Address the barriers to adoption
- Communicate the value of a technology throughout the research and development—not only at the conclusion.

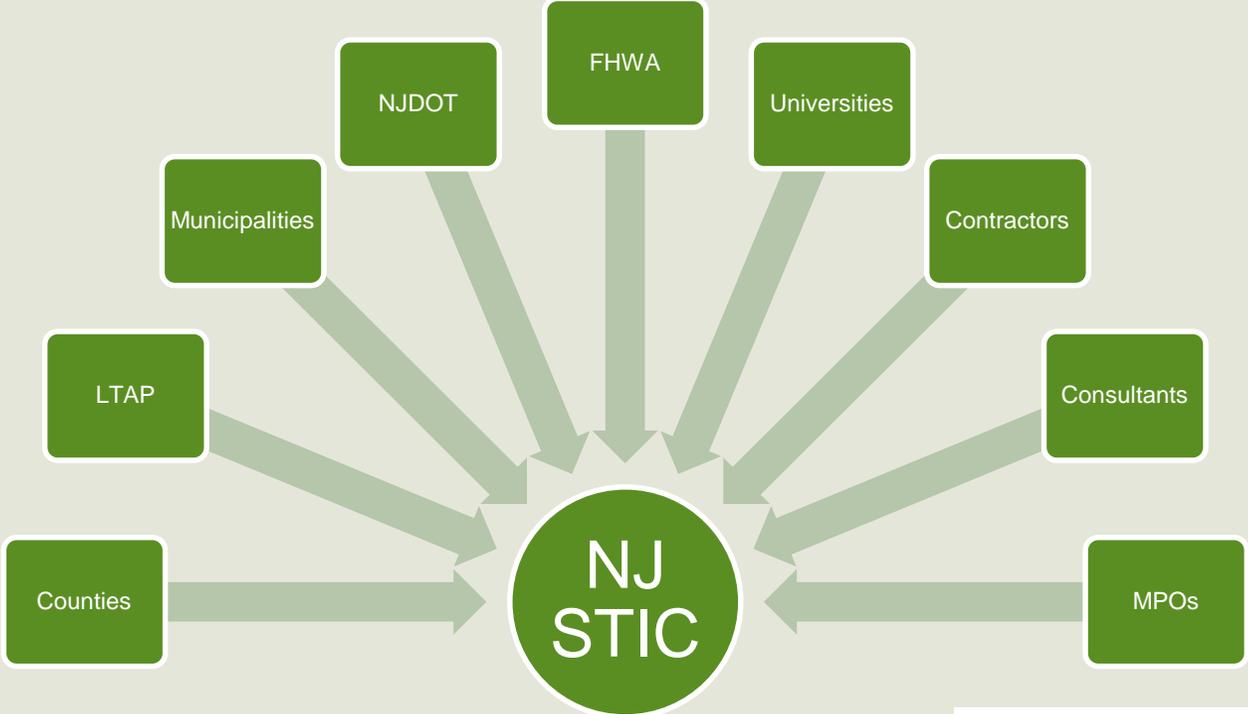


NJDOT'S T2 Program Objectives:

- Developing a Knowledge Capture Program to address loss of knowledge (brain drain)
- Hosting Training and Events (Tech Talks, Webinars, Peer Exchanges)
- Online Events Calendar
- Competition/Awards for ideas in innovation
- Tech Transfer website
- Newsletter
- Prepare Annual Implementation Status Reports
- Web-based crowdsourcing tool for solicitation of research ideas
(David Aimen - IdeaScale)



NJ State Transportation Innovation Council (STIC)



Where do the innovative ideas come from?
How do I submit an Idea to the STIC?



NJDOT Intranet (internal)
NJDOT Internet (public)

Step 1 Click on the button
Step 2 Fill out the online form
Step 2 Click submit!

See our STIC display
boards and submit
your idea TODAY!

Need more information?
Email DOT-Innovative.Idea@dot.nj.gov



Core Innovation
Area
INFRASTRUCTURE
PRESERVATION

Core Innovation
Area
SAFETY

Core Innovation
Area
MOBILITY &
OPERATIONS

Executive Team
Manages STIC operation
Point for reporting to Assistant Commissioner & FHWA
Coordinates with all groups

**Innovation
Advisory
Team**

STIC Council

Core Innovation Area (CIA) Teams



CIA TEAM SAFETY

NJDOT – Sophia Azam
FHWA – Caroline Trueman

CIA TEAM MOBILITY & OPS

NJDOT – Sal Cowan
FHWA – Ek Phomsavath

CIA TEAM INFRASTRUCTURE PRESERVATION

NJDOT – Bob Signora
FHWA – John Miller

- Propose Innovations
- Investigate Ideas
- Develop Ideas
- Deploy Ideas

Report to FHWA and the Council

Innovation Advisory Team (IAT)



CIA TEAM LIAISONS
(NJDOT & FHWA)

NJDOT SUBJECT
MATTER EXPERTS

OTHER STIC MEMBERS

- Screens Innovative Ideas
- Provides Process Feedback to Executive Team

Executive Team



Assistant Commissioner Russo
NJDOT Bureau of Research
FHWA Assistant Division Administrator
FHWA Innovation/EDC Coordinator

- Manages & Coordinates NJ's STIC Initiative
- Screens Innovative Ideas
- Supports CIA & IAT Teams

NJ STIC Achievements



- Institutionalized 13 innovations
- Advancing most Every Day Counts (EDC-4) initiatives
- 5 STIC Incentive Funding Projects
 - Safety Analyst
 - Use of Mobile Devices in Local Public Agencies (LPA) Program
 - Unmanned Aerial Systems (UAS)
 - Peer Exchanges for Local Safety Program
 - Expanding e-Construction Using Mobile Devices
- Applied for an Accelerated Innovation Deployment (AID) Funding project for Weather-Savvy Roads

<https://www.fhwa.dot.gov/innovation/stic/>

Communication & Outreach



- Websites, newsletters, calendar
- Web-based research idea solicitation platform (Ideascale)
- Increased participation on TRB Committees/Subcommittees
- Actively pursuing recognition for accomplishments
- Stronger requirements for research implementation plans
- Innovative Awards & Competitions

Build a Better Mousetrap Competition

Deadline to submit entries is **June 1st, 2018.**

Please submit all entries by mail or email to:

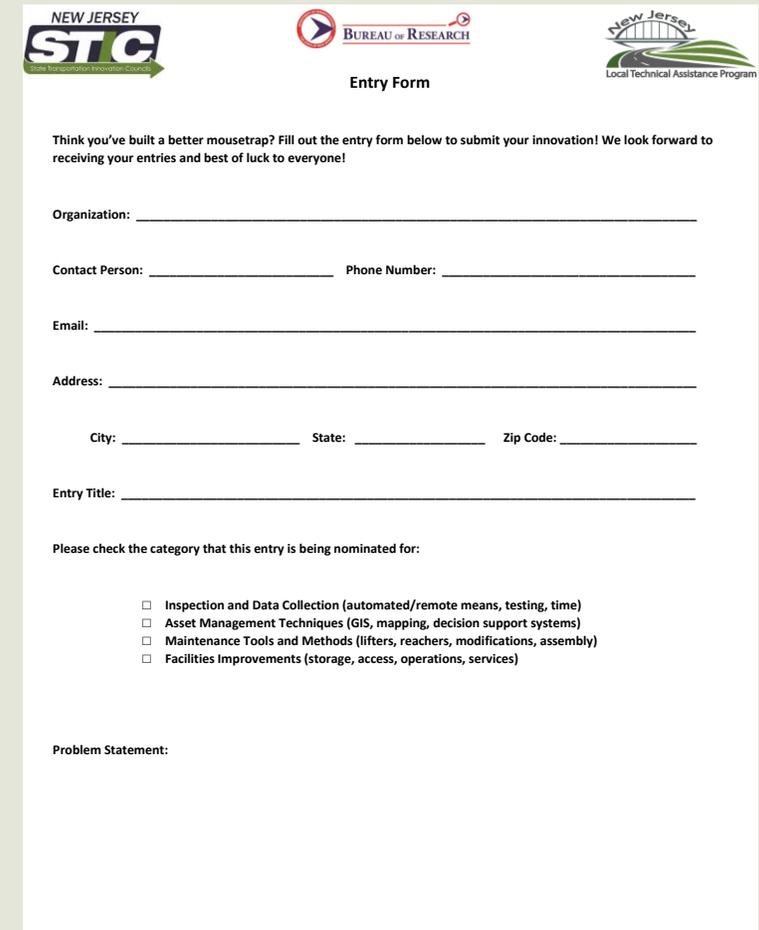
New Jersey Local Technical Assistance Program
100 Brett Road, Piscataway New Jersey 08854

Email: NewJerseyLTAP@gmail.com
Janet Leli – 848-445-2906

<https://cait.rutgers.edu/njltap/2017-build-better-mousetrap-competition>

Employees of local or state public transportation agencies (municipalities, counties, parks commissions, NJ Department of Transportation, NJ Transit)

****ENTRY FORMS ARE AVAILABLE TODAY****



The image shows a form titled "Entry Form" for the "Build a Better Mousetrap Competition". At the top, there are three logos: "NEW JERSEY STC" (State Transportation Council), "BUREAU of RESEARCH", and "New Jersey Local Technical Assistance Program". The form contains the following text and fields:

Think you've built a better mousetrap? Fill out the entry form below to submit your innovation! We look forward to receiving your entries and best of luck to everyone!

Organization: _____

Contact Person: _____ Phone Number: _____

Email: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Entry Title: _____

Please check the category that this entry is being nominated for:

- Inspection and Data Collection (automated/remote means, testing, time)
- Asset Management Techniques (GIS, mapping, decision support systems)
- Maintenance Tools and Methods (lifters, reachers, modifications, assembly)
- Facilities Improvements (storage, access, operations, services)

Problem Statement: _____

We are...

Contracting & Administrative Support

Suzanne Rizzo

Stephanie Nock

Research Project Managers

Kimbrali Davis

Tineen Howard

Stefanie Potapa

Mac Rashid

Pragna Shah

Priscilla Ukpah

Giri Venkiteela

Research Librarians

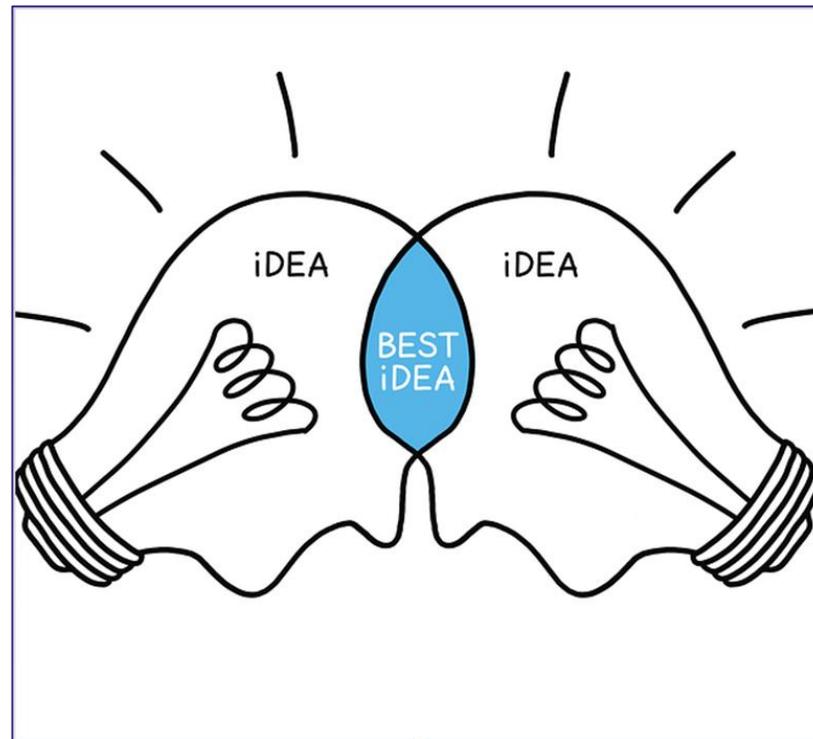
Carol Paszamant

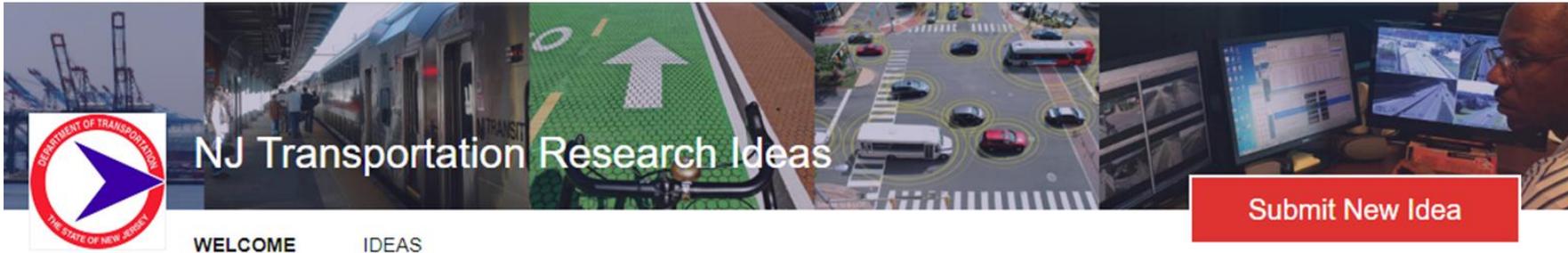
Laurie Strow





A website to gather and share research ideas





What is our goal?

To find workable solutions to problems that affect the safety, mobility and accessibility of New Jersey's residents, workers, visitors and businesses.

To enhance the quality and cost effectiveness of the policies, practices, standards and specifications that are used in planning, building and maintaining New Jersey's transportation infrastructure

What are we looking for?

Research ideas from our research customers, research institutions and other practitioners that address critical existing and emerging transportation needs in New Jersey.

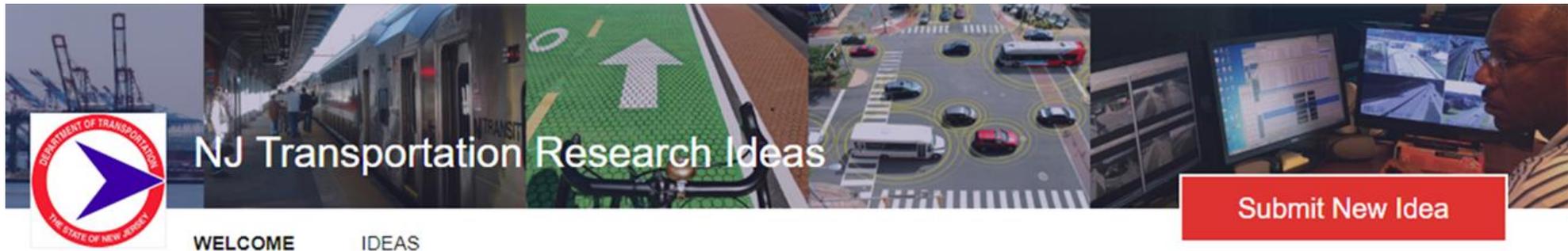
We want ideas that can turn problems into solutions that can be implemented.

Who do we work with?

University and other research professionals

Where are research ideas shared?

<https://njdottechtransfer.ideascale.com/>



PLANNING & ENVIRONMENT

Evaluation of Bridge Serviceability Using Anonymous Probe Vehicle Data

Developing rational and transparent performance measure is essential to guide infrastructure investment decisions and assess outcomes. Traditionally, the performance measures used to evaluate highway bridges were strength, serviceability, and necessity of use. These components were used to derive the sufficiency factor for bridges in the National Bridge Inventory (NBI). For a structure, strength is always the critical ...**more** »

Submitted by IdeasAdmin2 (@site.admin2) on 27th Sep | [Add your comment](#)

List your Agency /Division / Bureau, County, City Univ. or Other : The College of NJ (TCNJ), Department of Civil Engineering

Idea Champion - Who at NJDOT, NJ Transit or NJ Motor Vehicles? : Sudhir Joshi & Ira Levinton, Division of Statewide Planning, Commuter Mobility Strategies; Greg Renman & Natr Kasbekar, Bridge Engineering & Infrastructure Management; Wasif Mirza, Mobility & Systems Engineering; Chris Barretts, Traffic Engineering

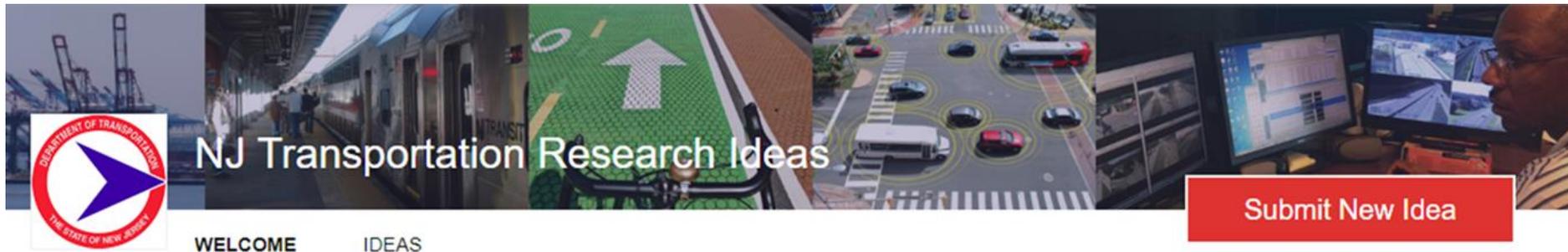
Why is this a priority and what are the benefits for the State/County/City? :

1) Development of measurable bridge service metrics which can be used for risk-based asset management; 2) Increased clarity on decisions regarding bridge repair and total replacement; 3) Increased return on investment (ROI) for funds dedicated to bridge repair and replacement; 4) Improved ability to evaluate ROI



Ideas Need

- Title
- Description
- “Champion” to see idea through the research process
- Why is this a priority?
- What are the benefits?



Campaigns

All Ideas



Design and Construction



Operations & Preservation



Planning & Environment



Policy and Organization



Traffic & Safety



Multi-Modal System Compo...

Which “Campaign” does your idea fit in?

- Community members can see the research categories for which NJDOT is seeking ideas.

Who else is interested in this topic?

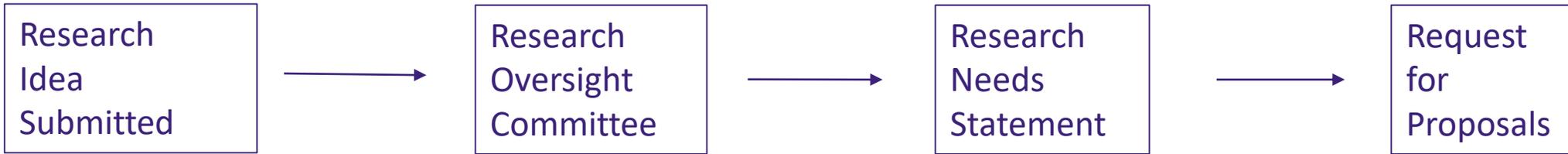
- Develop Communities of Practice
- Collaborate with peers interested in similar ideas



NJ Transportation Research Ideas

WELCOME IDEAS

[Submit New Idea](#)



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2 votes



Title
Problem Statement
Literature Search
Research Objective
Implementation
Prospects
Research Significance
Project Duration
Cost Estimate...

New Jersey Department of Transportation
 Bureau of Research
RESEARCH PROJECT
Request for Proposal
2016/17 Program

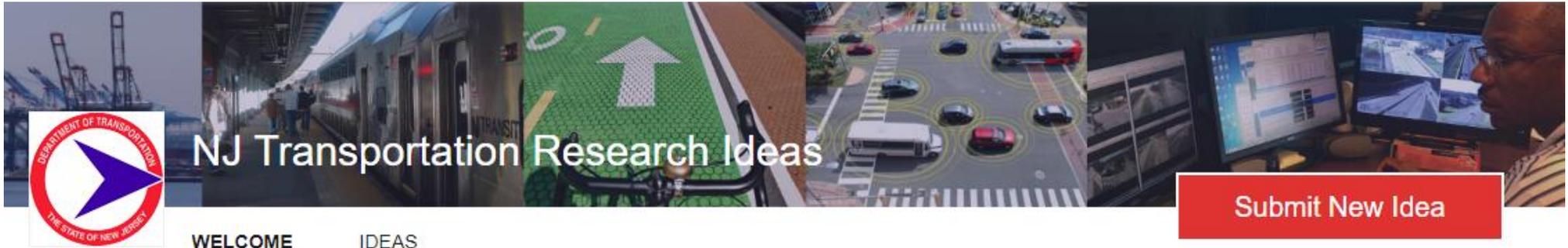
[Technology Transfer Program](#)

Project No. 2016-11

Date of RFP
05/02/2016

Closing Date
06/10/2016





Create Your Account (Already have an account? [Log in](#))

*Required fields

Email Address *

Language *

Professional Title : *

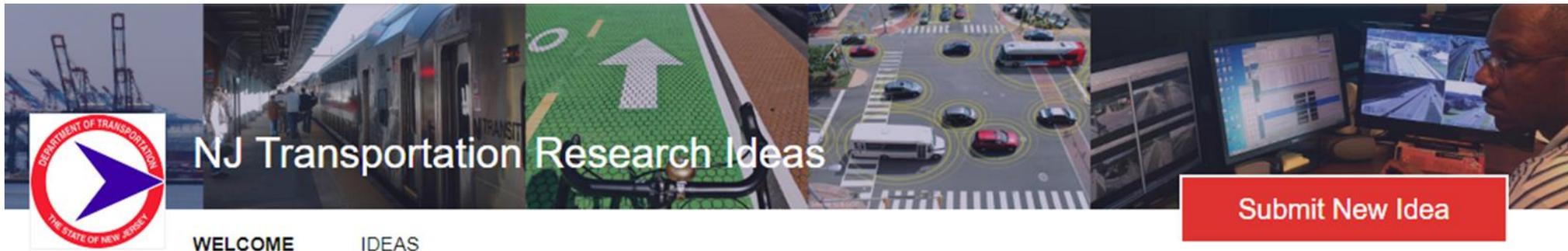
Agency/Organization or Professional Affiliation : *

Hide my identity (Submit anonymously) OFF

Send me news and updates about IdeaScale OFF

[Register](#)

- 1. Register to Participate.** NJDOT’s research customers and other interested transportation practitioners (e.g., MPOs, county and local governments, and other transportation subject matter experts from trade, universities and NGOs) can register to participate.
- 2. Submit Research Ideas.** Registered participants log in to submit a new idea. You may submit ideas at any time.
- 3. Comment and Vote.** Give feedback on other research ideas and vote to show support.
- 4. Check back to see what’s new.**



When is the deadline for the next research round?

- The deadline for new research ideas to help inform the next round of research RFPs is **December 31, 2017**.
- Research ideas will be prioritized by the Research Oversight Committee after this date, and high priority research needs will be posted as proposals. RFPs will be posted on the Bureau of Research website.
- We will continue to collect research ideas. Submit a new idea anytime!

[Submit New Idea](#)



1. **Where Do I Register?** <https://njdottechtransfer.ideascale.com>

2. **Who Can Register to Participate?** NJDOT's research customers and other interested transportation practitioners (e.g., MPOs, county and local governments, and other transportation subject matter experts from trade, universities and NGOs) can register to participate.

3. **Questions about How to Register?**

Please email our site administrator: ideas@njdottechtransfer.net

Create Your Account (Already have an account? [Log in](#))

*Required fields

Email Address *

Language *

Professional Title : *

Agency/Organization or Professional Affiliation : *

Hide my identity (Submit anonymously) OFF

Send me news and updates about IdeaScale OFF

TRUSTe Certified Privacy